

Roadmap for the Mobilization of Electronic Healthcare Information in Texas

Final Report - Executive Summary Of the Texas Health Information Technology Advisory Committee

Version 1.1

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Dear Texans,

Each year in the United States, there are more than 900 million doctor office visits. Think about the last time you visited your doctor or a doctor's office for someone in your family. Upon checking in with the receptionist at the front desk, what did you have to do before you were actually seen by the doctor?

1. Show proof of your health care coverage by producing your insurance card.
2. Sign a form that informs you of your rights and allows you to give your consent for release of information.
3. Fill out a series of forms which ask you to provide the following:
 - Name, address, phone number, reason for visit
 - Family history
 - Listing of current medications and allergies
 - Immunization history
 - Insurance and billing information
 - Emergency contact information....and the list goes on.

How much time does it take for you to fill out these forms? How many times do you fill out the same type of forms at every health care visit, throughout your life? What happens in the case of emergency and you are unable to provide critical information? Every second counts! What could you do with that time if you had it back? What if you and your physician had access to your health information when you needed it in a secure electronic format, and the ability to share your information with your consent to other health care providers to ensure quality and safety? These are several of the benefits of health information technology (HIT) and electronic health information exchange (HIE).

Health information exchange is a way to electronically move your personal health and medical information securely between your doctors, hospitals and other health care providers when it is needed for your care. With your consent, your health information will be protected and exchanged under current medical privacy and confidentiality standard procedures. Secure electronic HIE allows you to make sure your health information is available when and where you need it while seeking medical care or treatment.

Americans support the creation of an HIE for patients and physicians and believe it will enhance quality and efficiency of the health care system. A recent survey of patients illustrates how they feel about such a system:

- "Great way for health information to get from doctor to doctor to improve treatment"
- "It gives your doctor and hospital the ability to treat you faster. It may save our lives one day"
- "All of my doctors would have access to all of my records. HIE would help everyone participating in the event of a disaster."

Texas' progress in HIT adoption is well underway. Many Texas hospitals are already using electronic medical records (EMRs). In addition, many of Texas' major metropolitan areas are planning for or are also underway with HIT and HIE projects. The continued improvement of the Texas healthcare system through HIT will require every Texan's awareness and willingness to continue to improve upon communication in the healthcare system.

The Texas Legislature has directed a statewide council to establish an advisory committee to develop a plan for the use of information technology (IT) in Texas. This plan called, The Roadmap for the Mobilization of Electronic Healthcare Information in Texas, was written for Texas policymakers as a guide outlining recommendations for accelerating the use of EMRs and electronic healthcare data sharing in pursuit of better patient healthcare services and outcomes. Although the recommendations made in the Roadmap may not seem relevant to the average Texan, the improvements that will be made possible through the implementation of these recommendations by policymakers will transform the healthcare system to the benefit of all Texans.

While the public's support for HIE is widely known, it is recognized that Texans have a strong concern for the privacy and security of their personal health records. In the Roadmap, we have made this a top priority and have begun to address these concerns by identifying core patient principles that need to be recognized in the development of HIT or HIE projects in Texas. An example of one of these many principles is that "Employers must not have access to medical records without patient authorization." As this process continues to evolve, these and additional principles will evolve and should provide you with the comfort of knowing that your personal health information will be secure and private.

Health information technology and health information exchange have emerged as a solution to the challenges posed by the need to communicate across the fragmented healthcare system, ensuring that healthcare providers have the right information about you at the right time. What happens when information is not available when you need it most? HIT and HIE results in a win-win strategy for patients and physicians, working together in partnership to ensure a safer, more efficient and cost effective health care delivery environment. We strongly encourage each and every Texan to take part in future planning activities relating to HIT and HIE projects for Texas.

When it comes to your health...every second counts!

Sincerely yours,

Members of the Texas Health Information Technology Advisory Committee





I. Executive Summary

In the 79th Regular Session of the Texas Legislature, Senate Bill 45 was passed, which directed the Texas Statewide Health Coordinating Council (SHCC) to establish and appoint members to the Texas HIT Advisory Committee (HITAC). Senate Bill 45 further directed the HITAC to develop a long-range plan for the use of HIT in Texas.¹ The SHCC established and appointed members to the HITAC in late 2005. This report, the Roadmap for the Mobilization of Electronic Healthcare Information in Texas (the Texas Roadmap), is the long-range HIT plan in response to Senate Bill 45.

There is a growing consensus in the healthcare and health policy communities that the healthcare system of the future will be supported by an infrastructure made up of ubiquitous, interoperable, electronic health records (EHRs) composed of structured data elements, and a secure network to support the exchange of health information among providers and patients, regardless of location. Activities relating to the development of an electronic health information infrastructure are increasing at national, state, and regional levels. Mobilizing health information electronically has the potential to improve the quality, efficiency, and safety of healthcare by providing ready access to clinical data at the point of care and reducing adverse drug events.

In addition, the greater availability of electronic health information also has the potential to contain rising healthcare costs through the reduction of administrative costs and duplicative testing. Ultimately, reliable and secure systems for aggregating health information will allow more robust and timely descriptions of community and population health status, and help protect and improve the health of the people of Texas.

To realize the benefits of an electronic health information infrastructure, two conditions must be met. First, the use of EHRs by providers must become widespread. Second, the organizational, technical, and social capacities for enabling HIE must be developed. The Texas Roadmap articulates an initial strategy for meeting these conditions by accelerating the adoption and use of HIT², such as EHRs and building a framework for the statewide electronic HIE. As required by Senate Bill 45, this strategy includes recommendations for the use of EMRs, computerized clinical decision support systems, computerized physician order entry, and regional data sharing in pursuit of greater cost-effectiveness and better patient healthcare outcomes in Texas.

As further directed by Senate Bill 45, the advisory committee also studied the effect of HIT on price disparities in insurance coverage for Texas residents. To accomplish its task, the HITAC established three subcommittees – People, Process, and Technology – with two to three workgroups under each subcommittee to address specific issues and provide preliminary recommendations. Overall, 35 healthcare leaders and experts representing major healthcare organizations, providers, healthcare buyers and payers, health informatics, academia, and others contributed their time and expertise to developing this Texas Roadmap.

Activities during the eight-month project time period involved a combination of face-to-face and conference call meetings, interviews with Texas healthcare industry leaders, research of national and state HIE efforts, presentations by various Texas HIE initiatives, and frequent consultation with subject matter experts.³ All meetings of the HITAC and subcommittees were conducted pursuant to the rules and requirements of the Texas Open Meeting Acts. As a final review, the HITAC's Preliminary Report was published in the Texas Register in July 2006 for public comments. A total of 11 organizations presented substantive comments and several were incorporated into the Final Report as presented herein.

Also during this time period, a statewide assessment of the current status in Texas for the adoption and

implementation of HIT and HIE. The assessment process included the following components:

- interview summary representing input from 21 Texas healthcare industry stakeholders (representatives from hospitals, physician groups, health plans, employers, and academic medical centers);
- inventory of current HIE initiatives identified in Texas; and
- organizational readiness assessment survey conducted with various Texas healthcare participants.⁴

A copy of this statewide assessment, entitled Health Information Exchange in Texas: Current Status and Future Potential, may be accessed by going to the following link: <http://workspace.ehealthinitiative.org/medigent/collaborate/category/default.aspx?CID=261>.

A. Principles

In developing the long-range plan for HIT in Texas, the HITAC followed a number of key principles. The HITAC recommends the planning and development of the electronic health information infrastructure should:

1. **Be Patient-Centric:** First and foremost, all HIT efforts should focus on patient privacy, patient outcomes, and patient safety.

2. **Engage Stakeholders:** Create value for all participants - statewide, regionally, and for each stakeholder interest.
3. **Emphasize Market-based Solutions:** Market forces should be permitted to drive HIT and HIE adoption and implementation in regional initiatives to the fullest extent possible.
4. **Promote Regional HIE Solutions:** Every region of Texas is different and should be given the freedom to fit into the emerging electronic health information infrastructure in the most appropriate way to protect patient health data.
5. **Leverage Existing HIT Initiatives and Resources:** A coordinated effort, leveraging existing initiatives and resources would provide the greatest potential for improving HIT adoption rates and HIE success.
6. **Recognize IT as an Enabler:** An HIT strategy for Texas should support and enable a broader healthcare vision; rather than expending resources on technology without specific clinically identifiable benefits associated with the technology.
7. **Proceed via an Incremental and Evolutionary Process:** The capacity for transformational change of an industry of this magnitude, including technical capacity, system capacity, and most importantly, social capacity needs to proceed via an incremental, evolutionary process.
8. **Remain Cognizant of Federal Efforts:** The HIT strategy should be mindful of and support, but not duplicate the work and activities surrounding HIT and HIE implementation at the federal level.
9. **Recognize Effect of HIT on a Culturally Diverse Population:** As a foundation for all other principles and as part of the design, development, and implementation of all HIT activities, sensitivity to the culturally and linguistically diverse population of the State of Texas must be considered.

With the active participation of healthcare providers, healthcare purchasers, and most importantly, patients in Texas, HIT has the potential to significantly transform the healthcare system as we know it today and hence positively impact point of care, continuity of care, patient safety and healthcare efficiency.

B. Increasing Provider Adoption and Implementation of HIT

While the use of EHR systems by healthcare providers is increasing in Texas, there are noted challenges and barriers to adoption and implementation. The three major concerns expressed by providers, in order of significance, are cost, the lack of a sufficient return on investment, and the potentially unreliable nature of an electronic system. Healthcare providers perceive that they will not recognize the financial

benefits from the costly conversion to EHRs and those laboratories, pharmacies, patients, payers, and purchasers are more likely to benefit after doctors and hospitals switch to EHRs. As perceived by providers, incentives are misaligned under the current healthcare system. Providers will remain reluctant to adopt new technologies until they believe their investment will yield a positive return. Many providers are concerned about implementing technology without interoperability standards in place.

As part of its charter and mission, the HITAC developed a set of recommendations to address these barriers and offer ways to increase HIT adoption and implementation by physicians. Some of the recommendations assumed that some state-level entity – existing or emergent, public or private – will establish HIT goals and promote the HIT agenda. The HITAC referred to this entity as the “statewide coordinating body.”

Recommendation 1.1

Create a statewide coordinating body, which will work with Texas partners and practicing physicians to determine financial incentives to increase EHR adoption across Texas that meet patients’ expectations for privacy and control of access to their records.

Recommendation 1.2

Empower the statewide coordinating body to work with Texas partners and advisory groups to explore policy changes that should occur to increase the adoption of EHRs.

Recommendation 1.3

Charter the statewide coordinating body to partner with Texas organizations that are already focused on HIT adoption.

Recommendation 1.4

Encourage the statewide coordinating body to provide guidance, direction, and education to the stakeholders as part of the effort of HIT adoption.

Recommendation 1.5

Support EHR education and training in health profession schools and across the provider community using an entire spectrum of educational media (e.g., internet, print, classroom).

Recommendation 1.6

Create Centers of Excellence (at regional or state-level) to facilitate the sharing of information between stakeholders (e.g., patients, providers, vendors, health plans) through list serves and other online forums.

Recommendation 1.7

Leverage existing state and national HIE initiatives.

Recommendation 1.8

Encourage Texas’ U. S. Congressional delegation to actively support final regulations creating new safe harbors in the rules implementing the federal anti-kickback and physician self-referral statutes to enable greater adoption of EHRs.

C. Effect of HIT on Price Disparities

It is anticipated that increased HIT adoption will generate downward pressure on healthcare costs. Overall, this should lead to fewer employers dropping health coverage for their employees and thus, yield greater health insurance coverage than would have existed in the absence of HIT. One example of HIT decreasing costs is the adoption of ambulatory computerized physician order entry (ACPOE) in which providers can use clinical evidence at the point of care fully utilizing IT for quality improvement and disease management programs.⁵ There are demonstrated cost savings and improved patient outcomes from reductions in medical errors, decreases in mortality and morbidity, and expedited recovery times. For example, the Center for IT Leadership (CITL) estimates that a typical provider using an advanced ACPOE system would save approximately \$28,000 per year, including more than \$17,000 in medications, \$7,000 in radiology, and \$3,000 in laboratory expenditures.⁶

Another study by CITL, Value of HIE and Interoperability, identified \$78 billion in annual savings based on electronically sharing health care data between providers and stakeholders, which resulted in saving time and avoiding duplicate tests.⁷ With administrative and clinical data available and in EMRs, HIT can promote greater standardization of clinical care across populations and regions through the use of electronic clinical decision support, including order sets, alerts and reminders, mandatory date fields, and clinical guidelines in EHRs.

This standardization of clinical care should lead to similar utilization patterns across populations and regions to produce better health outcomes.

D. Statewide and Regional Strategies for HIT and HIE Implementation

The HITAC recommends a regional strategy for the implementation of health information networks for two key reasons. First, with the diversity of geographic regions and varied healthcare delivery systems across Texas, a grassroots effort will more likely lead to the development of the complex relationships, agreements, mechanisms, process, and trust required for a successful HIE and be responsive to specific regional healthcare market needs. Second, a regional approach will allow existing HIEs throughout the state to continue and potentially to serve as the foundation for future expansion. However, there is an important role for state-level leadership to provide necessary guidance, coordination, and direction to support regional needs, such as common policy and legal issues.

Like many other states, Texas is confronted with challenges concerning the implementation of HIE networks, including the lack of financial incentives and interoperable standards, compliance with anti-kickback regulations, ensuring privacy laws and regulations are followed, and the additional challenges that a competitive provider market presents. Overcoming these challenges will require significant investments of time, advocacy,

and leadership, as well as the right political and financial environment to align incentives and create the opportunity for change.

E. Recommendations for HIE Implementation

To accelerate the implementation of HIE in Texas and address many of the challenges listed above, the HITAC has formulated a number of recommendations categorized under the following functional areas:

- Governance
- Financial
- Clinical – Use Cases
- Technology
- Privacy and Security
- Outreach and Marketing

Individual Workgroup reports discussing each of these topics in more detail will be included in the Final Report as a separate accompanying attachment.

Governance

Governance involves forming a legal entity or organization to provide oversight and direction in the design and implementation of regional HIE initiatives. A governance structure should represent all major stakeholders in that particular market and activities should address the initialization (or start-up) phase,

planning and design phase, and the development and operational phase of an HIE, while also developing business, financial, and implementation plans, as well as defining legal and tax structures.

Recommendation 2.1

Establish a statewide coordinating body that includes public and private stakeholders to provide governance, guidance, direction, and coordination to the design and implementation of the electronic HIE framework for regional stakeholders in Texas.

This organization would perform state-level activities and functions, including: setting technology and data standards; acting as a federal liaison; developing privacy and confidentiality protocols; evaluating whether targeted policies are necessary for special-needs populations (children, geriatric, and individuals with disabilities) and/or the providers that serve them; coordinating state agency HIT activities; assisting in the coordination and collaboration of regional HIT and HIE initiatives; administering designated statewide funds for HIT and HIE; promoting and educating regional HIEs about national standards (technical and privacy); providing marketing and media materials; and providing an education plan working with existing HIT and HIE resources.

Recommendation 2.2

Encourage regional governance structures and activities to address activities in phases: initialization (or start-up); definition, planning, and design; and development and operational phases.

Financial

The HITAC recommends for the State to appropriate funds to initiate and sustain a statewide organization and to provide funding assistance to existing and new Texas initiatives. Due to the high prevalence of medical errors and adverse events, providing funding for HIT and HIE can have wide-spread public benefit. Adverse events are estimated to occur in 3.7 percent of hospitalizations and up to 13.6 percent of those hospitalizations lead to death.⁸ Studies and reports sponsored by the Agency for Healthcare Research and Quality (AHRQ), the Institute of Medicine (IOM), and other highly regarded organizations show that patient safety is among the top healthcare system challenges. While there are many opportunities to improve care through the use of clinical guidelines and decision support, currently very few healthcare providers utilize available clinical decision support (CDS) due to a lack of experience with implementing and monitoring CDS and the readiness of the clinicians for adoption.

Bringing clinical knowledge and information about the patient to the point of care through HIT will help close the gap between what the evidence tells us in accordance with guidelines and treatment protocols, as well as the care, interventions, and procedures that are actually delivered. Leading authorities and some of the nation's largest employers, providers, and physician groups across the country, Members of Congress and nearly every federal government healthcare agency have called for investment in electronic health information systems and HIE deployment.

Regional HIEs should, to the extent possible, implement sustainable revenue models to fund ongoing operations. The state and private healthcare purchasers should employ incentives for participation in HIE such as payment and cost differentials. Funds should be appropriated to monitor and measure improvement in patient outcomes and benefits resulting from HIEs. The HITAC recommends to address initial and ongoing financing for regional and certain state-level activities:

Recommendation 3.1

The state should appropriate funding for planning and implementation grants for regional HIE initiatives that can demonstrate a significant level of regional stakeholder funding and should carefully administer grants from this budget as a means to encourage regional HIEs to conduct effective initial planning, implementation, and sustaining activities, as well as to share their experiences with others. Grants from this budget should be available to currently operational HIEs and to plan for and develop innovative projects that further the adoption and use of HIEs by communities, providers, and patients.

Recommendation 3.2

Representatives of the state should collaborate with the finance workgroup counterparts of other states and with financial officers of regional HIE entities in Texas to examine cost and revenue drivers for HIE projects to identify typical start-up activities and costs and to develop selection criteria for start-up funding grantees.

Recommendation 3.3

Develop an inventory of possible Medical Trading Areas (MTA) that are candidates for an HIE.⁹ Each MTA should be evaluated based on characteristics that predict success of HIEs in terms of financial viability and benefit to the community. The state should use these criteria to prioritize candidates and to develop a budget for initial planning grants to be awarded to fund HIE planning efforts.

Recommendation 3.4

Regional HIEs should strive to implement sustainable revenue models based on charging participants (i.e., those who receive services through the HIE) for value added services. The state should commission studies to identify and quantify the value of HIE services, as well as encourage realistic business and financial plans for regional HIEs.

Recommendation 3.5

The proposed statewide HIE coordinating body should be funded initially by state (public) appropriations or a combination of public and private funds. Continued monitoring of the progress and activities of the statewide HIE coordinating body is recommended to determine whether future government oversight and or regulation is necessary and to monitor appropriate future funding models for the statewide HIE coordinating body, including the reversion to a totally private funding model.

Recommendation 3.6

The state should appropriate funds to establish an initial

baseline of health economics and quality and patient safety metrics and to monitor and measure the HIE improvement on patient outcomes, costs, benefits, and patient control of records and privacy protections.

Recommendation 3.7

The state and private insurers should employ payment and cost differentials as incentives for participation in HIE and adoption of HIT, regardless of historical utilization of such systems.

Recommendation 3.8

Regional HIEs should proactively work to reduce the cost and risk of implementing EHR systems in physician offices.

Clinical – Use Cases

In the context of regional HIT and HIE planning and development, regional initiatives often begin with a fairly simple clinical application of HIT or HIE, often referred to as a use case, which is similar to a scenario. In Texas, local, regional, or metropolitan areas, rather than the state itself, have been identified as the appropriate location and governing/supervising body for the sort of planning and implementation envisioned for these use cases. Regional HIT planners should consider the particular problems the HIT planning process is trying to solve, the economic and competitive aspects of the healthcare ecosystem, and regional strengths as they review them.

While there are many potential use cases, the HITAC examined eight use cases targeted for regional healthcare providers, purchasers, and other stakeholders that could be implemented as the first stage of a larger HIE. These eight cases include:

1. Clinical messaging
2. Document management
3. Electronic prescribing
4. Electronic registration
5. Laboratory ordering and results delivery
6. Medication history
7. EHR – patient health summary
8. Personal health record

Recommendation 4.1

Explore opportunities to increase patient safety and privacy, as well as quality and efficiency of healthcare delivery systems through the various use cases. Evaluate the technical feasibility of the use cases and identify regions willing to pilot one or more of the use cases.

Recommendation 4.2

Continue to monitor HIE use cases implemented throughout the United States and identify additional use cases that could be added to, or integrated with, the Texas initiatives.

Recommendation 4.3

Create vehicles to facilitate the communication and sharing throughout the state of best practices and successful regional implementations of the various use cases.

Recommendation 4.4

Determine financial strategies that support potential pilot funding through regional, state, and federal funding streams.

Technology

All participants to an HIE must agree to certain policy and technical standards in order for interoperability to occur. Although a number of technical data and messaging standards have been defined for HIT, at this time, there is not a single universal set of standards. There can be a variety of technical, logistical, business, legal, and regulatory issues that slow the achievement of interoperability and increase costs due to a lack of uniform standards and different technologies implemented for each point-to-point connection.

The HITAC identified three primary considerations for the Texas health information infrastructure: 1) ensuring widespread connectivity to the internet; 2) developing a mechanism for common patient identification; and 3) storing and managing health data for individuals and organizations, regardless of size. In addition, any HIE implementation should adhere to certain principles. The HIE infrastructure should: allow for the addition of

new users (scalable) and the addition of new functions (extensible); be non-invasive and minimally impact existing systems; be secure and private; and be redundant and survivable in the case of a regional disaster.

Some common data elements and functions that may prove useful in the use cases and for many other activities are: positive (credible, reliable) identity information for patients and all other participants in the care delivery process; list of patient visits to participants in the care delivery process; secure authentication for participants; Health Information Portability and Accountability Act (HIPAA) compliant audit capabilities; and a web-based access method for each of the functions.

Recommendation 5.1

Identify interim HIE standards, including but not limited to data and messaging standards. Monitor and actively participate in various Federal initiatives and HIT and HIE forums.

Recommendation 5.2

Ensure secure methods to uniquely identify individuals and practitioners.

Recommendation 5.3

Adopt a “hybrid” connectivity model for HIE. While the hybrid connectivity model allows for the use of legacy systems, common data and messaging standards will be necessary for interoperability.

Recommendation 5.4

Strengthen public health information infrastructure to interconnect sources of health and healthcare data, and where necessary, extend the public health information infrastructure in the underserved areas of Texas.

Recommendation 5.5

State agencies should be required to implement interoperable HIT and HIE systems so information can be shared between agencies.

Privacy and Security

A variety of federal and state statutes and regulations affect the formation of an HIE in Texas such as ensuring that the health information included in an HIE is private and secure and that patients, including special-needs populations (e.g., children, geriatric, individuals with disabilities) are protected. Rigorous adherence to these laws is essential to protect an individual’s right to privacy and the secure transfer of personal health information. Texans should control the use and access of their protected health information. This protected health information should only be used and accessed based on an individual’s expressed consent as currently required by Texas law and medical ethics.

The rights to medical privacy and the control of access to personal health information are primary expectations of patients. They may want the right to participate in systems and networks, segment sensitive data, access and correct health information, audit trails of all disclosures

with notification of suspected or actual privacy breaches, and privacy enforcement at the state and federal levels, including a private right of action for alleged breaches. The definition of the right of privacy from the Original HIPAA Privacy Rule is, “the claim of individuals, groups, or institutions to determine for themselves when, how, and to what extent information about them is communicated” (65 Fed. Reg. at 82,465).

Recommendation 6.1

As part of the next stage of HIT planning in Texas, an advisory group (composed of a broad cross-section of healthcare participants) should be established to develop policies relating to medical privacy and patient control of personal medical information, which accurately reflects the relative preferences of Texas patients.

Recommendation 6.2

In order for the HITAC to fulfill its statutory responsibilities, which require the creation of a “long-range plan for HIT,” the HITAC must create state legislative awareness of the legal issues surrounding medical privacy, HIPAA, and HIE through further research and customized education geared towards State legislators.

Recommendation 6.3

Any privacy ruling by the State Supreme Court of Texas that pertains to EMRs and the application of HIPAA should be monitored by the state coordinating body. The state coordinating body should inform the regional

HIEs of the interpretations and changes in privacy law as determined by the State Supreme Court.

Recommendation 6.4

Establish a patient ombudsman for medical privacy in the Texas Attorney General’s Office to develop model privacy notices, handle and investigate complaints of privacy violations, and to suggest legislative remedies, including penalties and enforcement.

Recommendation 6.5

Consent must be consistent with state, Constitutional, and common laws and grounded in medical ethics. The Texas Attorney General should develop and disseminate Model Privacy Notices and Patient Consent Forms.

Recommendation 6.6

Provide formal training for Texas patient and consumer organizations so they can become informed stakeholders and provide leadership to HIT systems and networks. A state HIE coordinating body or regional HIE initiative should develop a statewide plan for public debate, education, and discussion of HIE implications on medical ethics, Constitutional law, state and common law, and the physician-patient relationship.

Outreach and Marketing

In addition to education, marketing, and outreach will be critical for the adoption and implementation of HIT and HIE across the state of Texas. Clear information for patients, physicians, and other stakeholders should be developed as part of a media kit that is specific to Texas. Specifically, the media strategy for patients should include messaging about their privacy rights under Texas law and medical ethics. As this field of HIE is fast paced, always changing, and without a single proven solution, effective communications strategies are key. Several Workgroups made recommendations pertaining to education and marketing and the need to keep up with the rapid changes that occur. (Note: For the purposes of this document, education and marketing are viewed as separate items.)

A marketing and outreach strategy and dissemination plan is critical to the various stakeholders (e.g., patients, policy makers, physicians, employers). Examples of activities to be performed as part of the strategy include, but are not limited to, establishing and training a speaker's bureau, developing HIE marketing tools and templates, and reaching out to key stakeholders and partnering with existing groups in Texas to disseminate marketing information. In addition to the development of marketing and outreach tools, a mechanism needs to be in place to refresh these materials periodically for redistribution.

Recommendation 7.1

Develop a marketing and outreach/media

communications strategy, including HIT and HIE messaging and a dissemination plan.

F. Texas Roadmap Implementation

The Roadmap contains phased, actionable items, which will enable Texas to reach critical milestones to share healthcare information regionally and statewide. The recommendations are presented in four phases and are listed in perceived importance and dependence and many are interrelated and require simultaneous efforts to accomplish successfully. Some recommendations listed in the Roadmap may require legislative action and/or state funding appropriations. In addition, there are recommendations that may require establishing new regulations, modifying existing law, or enacting new law.

G. Conclusion

This report is a call to action for Texas in response to the Texas Legislature, which through Senate Bill 45 from the 79th Regular Legislative Session directed the Texas SHCC to establish an advisory group (HITAC) to develop a long-range plan for the use of HIT in Texas. There is a groundswell of local and regional Texas HIT and HIE initiatives currently in operation or in the planning stages. Now is the time to take action to ensure these local and regional initiatives are coordinated across the state and do not develop into "islands of information." The most pressing challenges have been addressed by the above recommendations: securing upfront funding, developing

a sustainable business model, addressing privacy and security, addressing organization and governance, engaging practicing clinicians, and addressing technical aspects.

No matter what our individual day-to-day roles are, the adoption and implementation of HIT and HIE is important to all – patients, providers, payers, and employers. The workgroup recommendations emphasize the following themes to ensure success:

- Provide appropriate level of statewide leadership, guidance, and convening
- Create HIT and HIE education for patients, providers, and lawmakers
- Eliminate or mitigate financial and technical barriers
- Leverage existing Texas HIT and HIE initiatives
- Engage all Texas stakeholders; encourage multi-stakeholder coordination and collaboration
- Focus on quality, safety, and efficiencies first - how can HIT and HIE address Texas' most pressing healthcare challenges

The healthcare industry, businesses both large and small, and government leaders throughout the state are excited and enthusiastic about the opportunity to improve patient care and delivery through a coordinated HIE initiative and the ability to reduce the rapid growth in state healthcare expenditures.

Texas has the potential to make significant progress in the widespread adoption of HIT and the implementation of HIE. The Roadmap offers recommendations for Texas to realize the benefits of HIT and HIE. It is time to demonstrate Texas' leadership and initiate an incremental approach to lay the foundation for continuously improving the quality and effectiveness of healthcare for the citizens of Texas.

References

1. Senate Bill 45: Advisory Committee on Health Care Information Technology. Effective Date: September 1, 2005. SB45 adds Section 104.0156 to the Texas Health and Safety Code.
2. Health Information Technology (HIT) is the local deployment of technology to support specific organizational business and clinical requirements. HIT is the technology employed within a provider organization (physician or hospital) or other service provider and includes such items as Electronic Health Records (EHR) systems, Practice Management Systems, and other administrative and workflow systems.

Health Information Exchange (HIE) is the sharing of data electronically across (between) organizations within a community, region, state, or across state borders. Examples include Patient Health Summary, Web Portal, Master Patient Index, Provider Index, and Longitudinal Medication Reconciliation).
3. Foundation for eHealth Initiative arranged for the following subject matter experts to share their insights and experiences: Dr. Marc Overhage (Regenstrief Institute); Shaun Grannis (Regenstrief Institute); Michael Heekin (Chair, Florida Health Infrastructure Advisory Board); Gerry Hinkley, Esq. (Davis, Wright & Tremaine, LLP); Jay McCutcheon (Director, Michiana Health Information Network); Chris Muir (Strategic Projects Manager, State of Arizona); Dr. Bill Braithwaite (eHealth Initiative); and Dr. Deborah C. Peel (Patient Privacy Rights Foundation).
4. *Health Information Exchange in Texas: Current Status and Future Potential*, prepared by the Foundation for eHealth Initiative and Partners, June 2006.
5. *The Value of Computerized Order Entry in Ambulatory Settings*, Center for Information Technology Leadership, December 2004.
6. Ibid.
7. *The Value of Healthcare Information Exchange and Interoperability*, Center for Information Technology Leadership, 2004.
8. Leape LL, Bates DW, Cullen DJ, Cooper J, Demonaco HJ, Gallivan T, et al. Systems analysis of adverse drug events. ADE Prevention Study Group. *JAMA*. 1995;274: 35-43.
9. A Medical Trading Area (MTA) is defined as a geographic location where patients receive medical services by doctors, hospitals, laboratories, pharmacies and others that are working together (formally or informally). Source: Arizona Health-e Connection Roadmap, Chris Muir, Strategic Projects Manager, presented to the HITAC, April 28, 2006.

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